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- Comments from the reviewers and editors (email to author requesting revisions)
- Response from the author (cover letter submitted with revised manuscript)\*

Personal or nonessential information may be redacted at the editor's discretion.

Questions about these materials may be directed to the *Obstetrics & Gynecology* editorial office: obgyn@greenjournal.org.

<sup>\*</sup>The corresponding author has opted to make this information publicly available.

**Date:** Apr 30, 2021

**To:** "Alex Friedman Peahl"

**From:** "The Green Journal" em@greenjournal.org

**Subject:** Your Submission ONG-21-796

RE: Manuscript Number ONG-21-796

A Rapid Review of Prenatal Care Delivery to Inform the Michigan Plan for Appropriate Tailored Healthcare in Pregnancy (MiPATH) Panel

Dear Dr. Peahl:

Your manuscript has been reviewed by the Editorial Board and by special expert referees. Although it is judged not acceptable for publication in Obstetrics & Gynecology in its present form, we would be willing to give further consideration to a revised version.

If you wish to consider revising your manuscript, you will first need to study carefully the enclosed reports submitted by the referees and editors. Each point raised requires a response, by either revising your manuscript or making a clear and convincing argument as to why no revision is needed. To facilitate our review, we prefer that the cover letter include the comments made by the reviewers and the editor followed by your response. The revised manuscript should indicate the position of all changes made. We suggest that you use the "track changes" feature in your word processing software to do so (rather than strikethrough or underline formatting).

Your paper will be maintained in active status for 21 days from the date of this letter. If we have not heard from you by May 21, 2021, we will assume you wish to withdraw the manuscript from further consideration.

### **REVIEWER COMMENTS:**

Reviewer #1: This is a very well-written and thoughtful review of the literature describing fundamental care giving issues in obstetrics. I only have several questions and observations:

'We included studies addressing one of the three components of prenatal care delivery (visit frequency, monitoring, and telemedicine) that assessed maternal and neonatal health outcomes, patient experience, or care utilization metrics in lowand high risk pregnant individuals':

Are you writing about the United States or other countries, too? Did you include any data regarding visitation by the care provider TO the client's residence?

Existing evidence for many elements of prenatal care delivery, including visit frequency, monitoring of routine assessments, and telemedicine, is limited for low- and high-risk patients.

Are we are assuming the care provider, gave correct advice, actually followed up on information and truly wanted to be an important piece of the pregnant client's care.

The panel leadership did not include prenatal care services, such as laboratory testing, imaging, and vaccinations, in their planned deliberations, as strong, evidence-based guidelines already exist for these aspects of care. I became confused here. Are you saying that since the client already has a urine dip for protein or a CBC for indices scheduled that somehow the patient contact 'wasn't counted' during the analysis?

One cross-sectional study of a hybrid prenatal care model with telemedicine and a reduced visit schedule during the COVID-19 pandemic reported overall high patient and practitioner satisfaction, but highlighted specific concerns about patient experience, access, and quality beyond the public health crisis. I would have guessed this model would have been the most popular. What were the concerns?

Would it be correct to say that we didn't know the evidence for many elements of prenatal care delivery, including visit frequency, monitoring of routine assessments, and telemedicine before or after the study?

Reviewer #2: This extensive review of the literature relating to prenatal care done by ACOG and the University of Michigan challenges the very basic components of prenatal care in the United states, how many times does a woman have to see a provider to have an optimum outcome for the pregnancy. It is eye opening to realize that what we do every day has is supported by limited evidence.

The Introduction, Methods, Study selection, Data Abstraction, Quality and organization of included studies, Results

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relating to Frequency of prenatal visits, monitoring and Telemedicine are detailed and well written. The explanation of how studies were selected and the use of two reviewers to screen the articles and a third to review when there was a discordance between the two reviewers was a very appropriate way to select the relevant information in the literature.

The Discussion summarizes much of the detailed analysis and highlights that for low risk patients we "over medicalize" prenatal care and could reduce the number of visits now being suggested by the American College of Obstetricians and Gynecologists. This would dramatically decrease the burden placed on patients who are asked to come to the office 14 times during their pregnancy AND would decrease the work burden on providers of obstetrical care without adversely affecting outcomes or patient satisfaction. For high risk patients the use of telemedicine and home monitoring of blood pressure and blood sugar would also improve care and outcomes for hypertensive patients, diabetics and those prone to depression.

I think the information in this paper should be read by everyone who provides prenatal care and be critically evaluated by ACOG to help revamp the recommended prenatal care presently provided in the United States. This would benefit patients and providers.

Some concerns about the paper include:

- 1. There is no consistent definition of "high risk"
- 2. The inability to consider social determinants of health as "high risk"
- 3. The frequent mention of "rapid review". The review may have been a "rapid review" but it was a comprehensive and meticulous review.
- 4. The paper did not discuss the utilization of ancillary testing such as NSTs and ultrasounds which are also part of prenatal care. There is great variation in utilization of these tests which may increase the burden of care on patients without improvement in outcomes.

I look for ward to ACOG and SMFM evaluating the information in this review and "modernizing" the suggested prenatal care practices to include decreased visits, home monitoring and telemedicine. This will greatly benefit patients and providers.

#### Reviewer #3: Comments to the author:

The authors present a well written and timely review of existing literature on three aspects of antenatal care for low and high-risk pregnancies. 1. Frequency of visits. 2. Modality of monitoring mother and baby. 3. Role of telemedicine. The expert panel assembled for this review was a collaborative effort between the American College of Obstetrics and Gynecology and the University of Michigan with the primary goal of reconsideration of current prenatal care guidelines and development of the Michigan Plan for Appropriate Tailored Healthcare in pregnancy. (MiPATH)

### Abstract:

Line 36 I was not familiar with what a "rapid" review was. It seems it is a variant of a systematic review to be utilized for questions that are rapidly evolving, like covid and telemedicine. The balance between a less rigorous method than a full meta-analysis needs to be balanced with timeliness of completion.

### Introduction:

Line 79 I would expand on which countries have fewer visits and better outcomes. The reference #7 listed several countries like France and Netherlands with avg. Number of visits 7.5 vs more in Japan 15. The rest of the introduction is concise and supportive of the clinical questions raised.

#### Methods:

Line 109 I would suggest expanding on the RAND/UCLA methods as a tool for assessing under or over utilization.

Line 124 Specify what comorbidities were included in the high-risk group.

Line 181-184 It is not clear how studies were excluded. Were just non-systematic reviews excluded?

Line 216-218 It is not clear if secondary outcomes were analyzed and how it would replicate studies from other sections. It seems like it would improve power. Please clarify.

### Results:

### Figure 1

What was the exclusion for not appropriate population 56? The only other population reference in the manuscript was the exclusion of low-income countries not considered peer comparison.

Line 240-241 It seems like data for frequency alone should be analyzed separately from those with additional services. These are 2 separate questions.

Line 246-247 The decreased frequency group 6-12 is broad range and overlaps with normal frequency of visits 12-14. What was the mean?

Line 334-336 The self assessment of fundal height is a poor predictor of IUGR regardless of who is doing it. What was done clinically if there was a discrepancy 3 cm or more? Did they all have interval growth ultrasounds regardless of FH?

Table 1 and supplements

Clear and easy to follow.

Discussion:

Thorough discussion with acknowledgement of most limitations.

### **EDITOR COMMENTS:**

- 1. The Editors of Obstetrics & Gynecology are seeking to increase transparency around its peer-review process, in line with efforts to do so in international biomedical peer review publishing. If your article is accepted, we will be posting this revision letter as supplemental digital content to the published article online. Additionally, unless you choose to opt out, we will also be including your point-by-point response to the revision letter. If you opt out of including your response, only the revision letter will be posted. Please reply to this letter with one of two responses:
- A. OPT-IN: Yes, please publish my point-by-point response letter.
- B. OPT-OUT: No, please do not publish my point-by-point response letter.
- 2. Authors of systematic reviews are encouraged to prospectively register their study in PROSPERO (https://www.crd.york.ac.uk/PROSPERO/), an international database of prospectively registered systematic reviews. If you already have a PROSPERO registration number, please note it in your submitted cover letter and include it at the end of the abstract.
- 3. Standard obstetric and gynecology data definitions have been developed through the reVITALize initiative, which was convened by the American College of Obstetricians and Gynecologists and the members of the Women's Health Registry Alliance. Obstetrics & Gynecology has adopted the use of the reVITALize definitions. Please access the obstetric data definitions at https://www.acog.org/practice-management/health-it-and-clinical-informatics/revitalize-obstetrics-data-definitions and the gynecology data definitions at https://www.acog.org/practice-management/health-it-and-clinical-informatics/revitalize-gynecology-data-definitions. If use of the reVITALize definitions is problematic, please discuss this in your point-by-point response to this letter.
- 4. Because of space limitations, it is important that your revised manuscript adhere to the following length restrictions by manuscript type: Review articles should not exceed 6,250 words. Stated word limits include the title page, précis, abstract, text, tables, boxes, and figure legends, but exclude references.
- 5. Specific rules govern the use of acknowledgments in the journal. Please note the following guidelines:
- \* All financial support of the study must be acknowledged.
- \* Any and all manuscript preparation assistance, including but not limited to topic development, data collection, analysis, writing, or editorial assistance, must be disclosed in the acknowledgments. Such acknowledgments must identify the entities that provided and paid for this assistance, whether directly or indirectly.
- \* All persons who contributed to the work reported in the manuscript, but not sufficiently to be authors, must be acknowledged. Written permission must be obtained from all individuals named in the acknowledgments, as readers may infer their endorsement of the data and conclusions. Please note that your response in the journal's electronic author form verifies that permission has been obtained from all named persons.
- \* If all or part of the paper was presented at the Annual Clinical and Scientific Meeting of the American College of Obstetricians and Gynecologists or at any other organizational meeting, that presentation should be noted (include the exact dates and location of the meeting).
- \* If your manuscript was uploaded to a preprint server prior to submitting your manuscript to Obstetrics & Gynecology, add the following statement to your title page: "Before submission to Obstetrics & Gynecology, this article was posted to a preprint server at: [URL]."

Please be specific about Bradley Hartman, Amara Khalid, Emma Lawrence, and Sarah Block's contributions.

6. The most common deficiency in revised manuscripts involves the abstract. Be sure there are no inconsistencies between the Abstract and the manuscript, and that the Abstract has a clear conclusion statement based on the results found in the

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paper. Make sure that the abstract does not contain information that does not appear in the body text. If you submit a revision, please check the abstract carefully.

In addition, the abstract length should follow journal guidelines. The word limit for Reviews is 300 words. Please provide a word count.

- 7. ACOG is moving toward discontinuing the use of "provider." Please replace "provider" throughout your paper with either a specific term that defines the group to which are referring (for example, "physicians," "nurses," etc.), or use "health care professional" if a specific term is not applicable.
- 8. Please review examples of our current reference style at http://ong.editorialmanager.com (click on the Home button in the Menu bar and then "Reference Formatting Instructions" document under "Files and Resources). Include the digital object identifier (DOI) with any journal article references and an accessed date with website references. Unpublished data, in-press items, personal communications, letters to the editor, theses, package inserts, submissions, meeting presentations, and abstracts may be included in the text but not in the reference list.

In addition, the American College of Obstetricians and Gynecologists' (ACOG) documents are frequently updated. These documents may be withdrawn and replaced with newer, revised versions. If you cite ACOG documents in your manuscript, be sure the reference you are citing is still current and available. If the reference you are citing has been updated (ie, replaced by a newer version), please ensure that the new version supports whatever statement you are making in your manuscript and then update your reference list accordingly (exceptions could include manuscripts that address items of historical interest). If the reference you are citing has been withdrawn with no clear replacement, please contact the editorial office for assistance (obgyn@greenjournal.org). In most cases, if an ACOG document has been withdrawn, it should not be referenced in your manuscript (exceptions could include manuscripts that address items of historical interest). All ACOG documents (eg, Committee Opinions and Practice Bulletins) may be found at the Clinical Guidance page at https://www.acog.org/clinical (click on "Clinical Guidance" at the top).

9. When you submit your revision, art saved in a digital format should accompany it. If your figure was created in Microsoft Word, Microsoft Excel, or Microsoft PowerPoint formats, please submit your original source file. Image files should not be copied and pasted into Microsoft Word or Microsoft PowerPoint.

Figures 1-2: Please upload as figure files on Editorial Manager.

If the figures were created using a statistical program (eg, STATA, SPSS, SAS), please submit PDF or EPS files generated directly from the statistical program.

Figures should be saved as high-resolution TIFF files. The minimum requirements for resolution are 300 dpi for color or black and white photographs, and 600 dpi for images containing a photograph with text labeling or thin lines.

Art that is low resolution, digitized, adapted from slides, or downloaded from the Internet may not reproduce.

- 10. Each supplemental file in your manuscript should be named an "Appendix," numbered, and ordered in the way they are first cited in the text. Do not order and number supplemental tables, figures, and text separately. References cited in appendixes should be added to a separate References list in the appendixes file.
- 11. Authors whose manuscripts have been accepted for publication have the option to pay an article processing charge and publish open access. With this choice, articles are made freely available online immediately upon publication. An information sheet is available at http://links.lww.com/LWW-ES/A48. The cost for publishing an article as open access can be found at https://wkauthorservices.editage.com/open-access/hybrid.html.

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If you choose to revise your manuscript, please submit your revision through Editorial Manager at http://ong.editorialmanager.com. Your manuscript should be uploaded in a word processing format such as Microsoft Word. Your revision's cover letter should include the following:

\* A confirmation that you have read the Instructions for Authors (http://edmgr.ovid.com/ong/accounts/authors.pdf),

and

\* A point-by-point response to each of the received comments in this letter. Do not omit your responses to the Editorial Office or Editors' comments.

If you submit a revision, we will assume that it has been developed in consultation with your co-authors and that each author has given approval to the final form of the revision.

Again, your paper will be maintained in active status for 21 days from the date of this letter. If we have not heard from you by May 21, 2021, we will assume you wish to withdraw the manuscript from further consideration.

Sincerely,

The Editors of Obstetrics & Gynecology

2019 IMPACT FACTOR: 5.524

2019 IMPACT FACTOR RANKING: 6th out of 82 ob/gyn journals

In compliance with data protection regulations, you may request that we remove your personal registration details at any time. (Use the following URL: https://www.editorialmanager.com/ong/login.asp?a=r). Please contact the publication office if you have any questions.

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Dwight J. Rouse, MD MSPH Editor-in-Chief, *Obstetrics & Gynecology* 

May 17, 2021

Dear Dr. Rouse,

We are pleased to submit our revised manuscript "A Review of Prenatal Care Delivery to Inform the Michigan Plan for Appropriate Tailored Healthcare in Pregnancy (MiPATH) Panel" as an original manuscript to *Obstetrics & Gynecology* for further review.

We appreciate the comments from the reviewers and editorial staff, and have made revisions as requested. Specifically, we have removed the term 'rapid review' from the manuscript title and several areas within the body to emphasize the rigor of our review process. We also clarified our rapid review process in the methods section for transparency. We have additionally clarified the language around "low-risk" and "high-risk" pregnancies, using the terms "patients without medical conditions" and "patients with medical conditions" to provide a more thorough and accurate definition of our study population. Finally, we have made minor edits for clarity throughout as suggested by the three reviewers. Line numbers refer to the clean version of the revised manuscript.

This paper has not been published elsewhere and is not currently submitted elsewhere. All authors made contributions to the preparation of this manuscript. None of the authors report any conflicts of interest. Thank you for your continued consideration.

Sincerely,

Alex Friedman Peahl, MD MSc Clinical Lecturer, Department of Obstetrics and Gynecology University of Michigan

#### **REVIEWER 1:**

### **Reviewer 1, Comment 1:**

'We included studies addressing one of the three components of prenatal care delivery (visit frequency, monitoring, and telemedicine) that assessed maternal and neonatal health outcomes, patient experience, or care utilization metrics in low- and high risk pregnant individuals': Are you writing about the United States or other countries, too?

**Response**: We appreciate the need to clarify the location of included studies. We have added text to describe the inclusion criteria: the United States and peer high-income peer countries. *Lines 171-172:* "...we restricted our included studies to those conducted in the United States and in high-income, peer countries of the United States, similar to other studies.<sup>7,8,16</sup>"

## **Reviewer 1, Comment 2:**

Did you include any data regarding visitation by the care provider TO the client's residence?

**Response**: We agree with the reviewer that home visitation is an important service for improving maternal and infant outcomes, with a robust existing body of literature, particularly for nurse home visiting programs. As most of these services are delivered outside of routine prenatal care delivery, they would only be included in our review if they were studied alongside other prenatal care modifications. There were no included studies that met this criteria. No textual changes were made to the manuscript.

### **Reviewer 1, Comment 3:**

Existing evidence for many elements of prenatal care delivery, including visit frequency, monitoring of routine assessments, and telemedicine, is limited for low- and high-risk patients. Are we are assuming the care provider, gave correct advice, actually followed up on information and truly wanted to be an important piece of the pregnant client's care.

**Response:** We agree that quality of care is an important piece of the pregnant client's care. Unfortunately, many existing studies of prenatal care measure exposure only through visit number or timing of initiation of care, and fail to capture important metrics such as completion of services as recommended by the American College of Obstetricians and Gynecologists or patient experience outcomes. These metrics are an important area of research to be expanded upon. In addition to this review, we have another manuscript under review with *Obstetrics & Gynecology* ("Prenatal Care Recommendations from the Michigan Plan for Appropriate Tailored Healthcare In Pregnancy Panel: MiPATH") that emphasizes the need for improved quality metrics in prenatal care in the discussion.

<sup>&</sup>lt;sup>1</sup>Doggett C, Burrett S, Osborn DA. Home visits during pregnancy and after birth for women with an alcohol or drug problem. Cochrane Database Syst Rev 2005:CD004456.

## **Reviewer 1, Comment 4:**

The panel leadership did not include prenatal care services, such as laboratory testing, imaging, and vaccinations, in their planned deliberations, as strong, evidence-based guidelines already exist for these aspects of care. I became confused here. Are you saying that since the client already has a urine dip for protein or a CBC for indices scheduled that somehow the patient contact 'wasn't counted' during the analysis?

**Response:** We appreciate this point of clarification. The panel did not consider these services separately because current recommendations are evidence-based. In contrast, prenatal care delivery, including visit frequency, number, and modality of services, has not been modified since 1930. Thus in this review, our aim was to provide a synthesis of data supporting different methods of delivering evidence-based prenatal care services, not evidence for the services themselves. We have added some clarifying language to signify this difference. *Lines 74-78*: "While evidence for the delivery of prenatal care services such as vaccinations, laboratory testing, and imaging studies are well-supported by the literature, less is known about how to deliver these services through routine prenatal care—including prenatal visit frequency, monitoring of routine pregnancy assessments (i.e. blood pressure, fetal heart tones, weight, and fundal height), and use of telemedicine. 4-6"

## **Reviewer 1, Comment 5:**

One cross-sectional study of a hybrid prenatal care model with telemedicine and a reduced visit schedule during the COVID-19 pandemic reported overall high patient and practitioner satisfaction, but highlighted specific concerns about patient experience, access, and quality beyond the public health crisis. I would have guessed this model would have been the most popular. What were the concerns?

**Response:** We have highlighted the key concerns with the hybrid prenatal care model in the study summary table. Specifically, these concerns included access barriers due to the digital divide, concerns about care quality without availability of home devices including blood pressure cuffs, and lower satisfaction without patient-provider continuity or adequate patient preparation for virtual visits.

Appendix 2, Page 14: "Overall satisfaction with the new model was high for patients and providers. Both groups expressed concerns about 1) access due to the 'digital divide'; 2) quality of care without home devices; and 3) satisfaction without adequate patient preparation and continuity"

## **Reviewer 1, Comment 6:**

Would it be correct to say that we didn't know the evidence for many elements of prenatal care delivery, including visit frequency, monitoring of routine assessments, and telemedicine before or after the study?

**Response**: Prior to this review, the data on these three aspects of prenatal care delivery had not been compiled. The most recent meta-analysis on visit frequency was completed in 2015; however, all included studies were prior to 2000. Thus, the review lacked more modern information on visit frequency. There was no existing comprehensive review of routine assessments. Though reviews of fundal height exist, all pregnancy parameters had not been summarized in a single review. Finally, a telemedicine review was published in 2020; however,

it was released prior to the COVID-19 pandemic and thus lacked data on telemedicine, which became critical during the pandemic. No textual changes were made to the manuscript.

# **REVIEWER 2:**

# **Reviewer 2, Comment 1:**

1. There is no consistent definition of "high risk"

**Response**: Thank you for highlighting the need for clarification around these definitions. To match the language used in the MiPATH panel (manuscript under review with *Obstetrics & Gynecology*), throughout the manuscript we have changed 'low-risk' to 'patients without medical conditions' and 'high-risk' to 'patients with medical conditions.' We have also added clarifying text to the manuscript.

Lines 125-131: "Recognizing that prenatal care delivery recommendations may differ for patients with medical comorbidities and pregnancy complications, we defined two population groups by medical risk for our review: 1) Patients without medical conditions: patients without any medical comorbidities or pregnancy complications; and 2) Patients with medical conditions: patients with any medical comorbidity (e.g. hypertension, diabetes), mental health diagnoses (e.g. depression, anxiety), or pregnancy complications (e.g. gestational hypertension, gestational diabetes)."

# **Reviewer 2, Comment 2:**

2. The inability to consider social determinants of health as "high risk"

**Response**: We agree that the inability to consider social determinants of health is a crucial component of prenatal care redesign and an important consideration for maternity care professionals. Unfortunately, how social and structural determinants of health should influence routine prenatal care is nascent in the literature. The MiPATH panel included social and structural determinants of health as key clinical, research, and policy priorities, and we look forward to seeing more data in this space in the future. No changes were made to the text.

## **Reviewer 2, Comment 3:**

3. The frequent mention of "rapid review". The review may have been a "rapid review" but it was a comprehensive and meticulous review.

**Response**: We recognize the confusion generated by this terminology. This language was initially recommended by the expert librarian on our team, in keeping with the terminology recommended by the National Collaborating Centre for Methods and Tools.<sup>2</sup> As this terminology may be confusing for different audiences, we have removed the term "rapid" from several locations throughout the paper. For transparency, we explain the rigorous but expeditious approach utilized for our review in the methods section with a supporting reference for our methodology.

*Lines 111-113:* "Rapid literature reviews are different from systematic reviews in that the process is expedited, but the approach remains rigorous and systematic.<sup>12</sup>"

<sup>&</sup>lt;sup>2</sup> https://www.nccmt.ca/tools/rapid-review-guidebook

## **Reviewer 2, Comment 4:**

4. The paper did not discuss the utilization of ancillary testing such as NSTs and ultrasounds which are also part of prenatal care. There is great variation in utilization of these tests which may increase the burden of care on patients without improvement in outcomes.

**Response:** We agree more research is needed around the utilization of NSTs and ultrasounds. Unfortunately, this was out of the scope of this review. No changes were made to the text.

#### **REVIEWER 3:**

## **Reviewer 3, Comment 1:**

Abstract:

Line 36 I was not familiar with what a "rapid" review was. It seems it is a variant of a systematic review to be utilized for questions that are rapidly evolving, like covid and telemedicine. The balance between a less rigorous method than a full meta-analysis needs to be balanced with timeliness of completion.

**Response:** Please see our response to Reviewer 2, Comment 3 above.

## **Reviewer 3, Comment 2:**

Introduction:

Line 79 I would expand on which countries have fewer visits and better outcomes. The reference #7 listed several countries like France and Netherlands with avg. Number of visits 7.5 vs more in Japan 15. The rest of the introduction is concise and supportive of the clinical questions raised.

**Response**: Thank you for highlighting the need for greater specificity. We have added text to the manuscript indicating examples of countries that have better maternity outcomes and fewer prenatal visits than the United States.

*Lines 78-80:* "Peer countries with better maternity outcomes than the United States (e.g. the Netherlands and the United Kingdom) recommend less intense prenatal visit schedules, with fewer visits more widely spaced throughout pregnancy.<sup>7,8</sup>"

## **Reviewer 3, Comment 3:**

Methods

Line 109 I would suggest expanding on the RAND/UCLA methods as a tool for assessing under or over utilization.

**Response**: We have added a reference to the scientific paper on the MiPATH panel process, which is also under review by *Obstetrics & Gynecology* ("The Michigan Plan for Appropriate Tailored Healthcare in Pregnancy (MiPATH) Prenatal Care Recommendations") This paper includes a detailed description of the RAND/UCLA Appropriateness Method, including the definition of "appropriate care" and tools used to determine this.

## **Reviewer 3, Comment 4:**

Line 124 Specify what comorbidities were included in the high-risk group.

**Response:** As summarized in our response to Reviewer 2, Comment 2, we included medical, mental health, and pregnancy comorbidities for the high-risk group (now defined as patients with medical conditions). In concordance with prior reviews, we did not exclude any specific medical conditions.<sup>3</sup>

## **Reviewer 3, Comment 5:**

Line 181-184 It is not clear how studies were excluded. Were just non-systematic reviews excluded?

**Response**: Thank you for bringing up this need for clarification. For study type, we included systematic reviews, clinical practice guidelines, randomized controlled trials, non-randomized trials, and observational studies (with and without comparator), in concordance with the methods used for literature reviews supporting other RAND/UCLA Appropriateness Method panels. We have highlighted this information in the methods section as well as in Table 1. *Lines 186-190:* "At this stage, study type criteria were applied to screened articles by including systematic reviews, clinical practice guidelines (CPGs), randomized controlled trials (RCTs), non-randomized trials, and observational studies and excluding non-systematic literature reviews, qualitative studies, RCT protocols, case studies and series, and commentaries (**Table 1**)."

## **Reviewer 3, Comment 6:**

Line 216-218 It is not clear if secondary outcomes were analyzed and how it would replicate studies from other sections. It seems like it would improve power. Please clarify.

**Response:** We appreciate the need for clarity surrounding our outcomes and analysis. As the outcomes from individual studies were heterogenous, we did not perform a meta-analysis or calculate the power for individual outcomes. We revised the text to clarify the inclusion of primary and secondary outcomes.

## **Reviewer 3, Comment 7:**

Results:

Figure 1

What was the exclusion for not appropriate population 56? The only other population reference in the manuscript was the exclusion of low-income countries not considered peer comparison.

**Response:** We appreciate the need for greater clarity of our study population. We have added more detail to our methods sections along with emphasis for the reader to see Table 1 for all inclusion and exclusion criteria.

<sup>&</sup>lt;sup>3</sup> DeNicola N, Grossman D, Marko K, et al. Telehealth Interventions to Improve Obstetric and Gynecologic Health Outcomes: A Systematic Review. Obstet Gynecol 2020;135:371-82

<sup>&</sup>lt;sup>4</sup> Paterson RS, Chopra V, Brown E, et al. Selection and Insertion of Vascular Access Devices in Pediatrics: A Systematic Review. Pediatrics 2020;145:S243-S68.

Lines 162-165: "We used the PICOS (Population, Intervention, Comparator, Outcomes, Setting) framework to guide our study question and determine relevant inclusion/exclusion criteria (**Table 1**). In summary, we included studies of pregnant patients without and with medical conditions, excluding preconception, intrapartum, postpartum, and admitted antepartum patients."

## **Reviewer 3, Comment 8:**

Line 240-241 It seems like data for frequency alone should be analyzed separately from those with additional services. These are 2 separate questions.

**Response:** While our initial search terms broadly included interventions including visit frequency, following the initial review, we divided studies into two categories: reduced visit schedule and reduced visit schedule with additional services. We have added some clarifying text to the manuscript to demonstrate the separation of these outcomes:

*Lines 247-248:* "The eight studies reviewed interventions targeting reduced prenatal visit frequency alone (n=6) or with additional interventions (n=2)."

# **Reviewer 3, Comment 9:**

Line 246-247 The decreased frequency group 6-12 is broad range and overlaps with normal frequency of visits 12-14. What was the mean?

**Response:** We agree that the interventions for reduced visit frequency were heterogeneous—due to the heterogeneity across studies, we did not conduct a meta-analysis and thus did not compile data across studies, thus no changes were made to the manuscript. These variable interventions highlight the need for future studies that assess maternal and neonatal outcomes following interventions with consistent definitions of reduced frequency prenatal visit interventions.

### **Reviewer 3, Comment 10:**

Line 334-336 The self assessment of fundal height is a poor predictor of IUGR regardless of who is doing it. What was done clinically if there was a discrepancy 3 cm or more? Did they all have interval growth ultrasounds regardless of FH?

**Response:** We recognize the limitations of fundal height and other screening interventions for abnormal growth. The definitions for abnormal fundal height differed between studies—while some used a "simple rule" (i.e. discrepancy of more than 2-3 cm), others used a customized growth chart to determine growth. Included studies used institutional protocols for growth discrepancy, which typically included ultrasound follow-up. The heterogeneity of study definitions highlights the need for more research in this field. We have added emphasis on this heterogeneity in the text:

Lines 338-342: "Metrics for appropriate growth determined by fundal height were heterogeneous among included studies. While some studies<sup>29</sup> used a simple rule for fundal height interpretation (normal fundal height in centimeters corresponding to gestational age in weeks  $\pm$  2-3 cm), others used customized fundal height charts adjusted for variables such as age, height, weight at first visit, parity, ethnicity, and smoking status. 30-33"

## **EDITOR COMMENTS:**

1. The Editors of Obstetrics & Gynecology are seeking to increase transparency around its peer-review process, in line with efforts to do so in international biomedical peer review publishing. If your article is accepted, we will be posting this revision letter as supplemental digital content to the published article online. Additionally, unless you choose to opt out, we will also be including your point-by-point response to the revision letter. If you opt out of including your response, only the revision letter will be posted. Please reply to this letter with one of two responses:

**Response:** A. OPT-IN: Yes, please publish my point-by-point response letter.

2. Authors of systematic reviews are encouraged to prospectively register their study in PROSPERO (https://www.crd.york.ac.uk/PROSPERO/), an international database of prospectively registered systematic reviews. If you already have a PROSPERO registration number, please note it in your submitted cover letter and include it at the end of the abstract.

Response: Not applicable

3. Standard obstetric and gynecology data definitions have been developed through the reVITALize initiative, which was convened by the American College of Obstetricians and Gynecologists and the members of the Women's Health Registry Alliance. Obstetrics & Gynecology has adopted the use of the reVITALize definitions. Please access the obstetric data definitions at https://www.acog.org/practice-management/health-it-and-clinical-informatics/revitalize-obstetrics-data-definitions and the gynecology data definitions at https://www.acog.org/practice-management/health-it-and-clinical-informatics/revitalize-gynecology-data-definitions. If use of the reVITALize definitions is problematic, please discuss this in your point-by-point response to this letter.

**Response:** Not applicable

4. Because of space limitations, it is important that your revised manuscript adhere to the following length restrictions by manuscript type: Review articles should not exceed 6,250 words. Stated word limits include the title page, précis, abstract, text, tables, boxes, and figure legends, but exclude references.

**Response:** Our revised manuscript adheres to the word count restrictions

- 5. Specific rules govern the use of acknowledgments in the journal. Please note the following guidelines:
- \* All financial support of the study must be acknowledged.
- \* Any and all manuscript preparation assistance, including but not limited to topic development, data collection, analysis, writing, or editorial assistance, must be disclosed in the

acknowledgments. Such acknowledgments must identify the entities that provided and paid for this assistance, whether directly or indirectly.

- \* All persons who contributed to the work reported in the manuscript, but not sufficiently to be authors, must be acknowledged. Written permission must be obtained from all individuals named in the acknowledgments, as readers may infer their endorsement of the data and conclusions. Please note that your response in the journal's electronic author form verifies that permission has been obtained from all named persons.
- \* If all or part of the paper was presented at the Annual Clinical and Scientific Meeting of the American College of Obstetricians and Gynecologists or at any other organizational meeting, that presentation should be noted (include the exact dates and location of the meeting).
- \* If your manuscript was uploaded to a preprint server prior to submitting your manuscript to Obstetrics & Gynecology, add the following statement to your title page: "Before submission to Obstetrics & Gynecology, this article was posted to a preprint server at: [URL]."

Please be specific about Bradley Hartman, Amara Khalid, Emma Lawrence, and Sarah Block's contributions.

**Response:** We have clarified the contributions on the title page

6. The most common deficiency in revised manuscripts involves the abstract. Be sure there are no inconsistencies between the Abstract and the manuscript, and that the Abstract has a clear conclusion statement based on the results found in the paper. Make sure that the abstract does not contain information that does not appear in the body text. If you submit a revision, please check the abstract carefully.

In addition, the abstract length should follow journal guidelines. The word limit for Reviews is 300 words. Please provide a word count.

**Response:** Due to the requested expansion of key terms, our abstract increased in word count. We have kept it as close as possible to 300 words (309).

7. ACOG is moving toward discontinuing the use of "provider." Please replace "provider" throughout your paper with either a specific term that defines the group to which are referring (for example, "physicians," "nurses," etc.), or use "health care professional" if a specific term is not applicable.

**Response:** We have replaced "provider" with "healthcare professional."

8. Please review examples of our current reference style at http://ong.editorialmanager.com (click on the Home button in the Menu bar and then "Reference Formatting Instructions" document under "Files and Resources). Include the digital object identifier (DOI) with any journal article references and an accessed date with website references. Unpublished data, inpress items, personal communications, letters to the editor, theses, package inserts, submissions, meeting presentations, and abstracts may be included in the text but not in the reference list.

In addition, the American College of Obstetricians and Gynecologists' (ACOG) documents are frequently updated. These documents may be withdrawn and replaced with newer, revised versions. If you cite ACOG documents in your manuscript, be sure the reference you are citing is still current and available. If the reference you are citing has been updated (ie, replaced by a newer version), please ensure that the new version supports whatever statement you are making in your manuscript and then update your reference list accordingly (exceptions could include manuscripts that address items of historical interest). If the reference you are citing has been withdrawn with no clear replacement, please contact the editorial office for assistance (obgyn@greenjournal.org). In most cases, if an ACOG document has been withdrawn, it should not be referenced in your manuscript (exceptions could include manuscripts that address items of historical interest). All ACOG documents (eg, Committee Opinions and Practice Bulletins) may be found at the Clinical Guidance page at https://www.acog.org/clinical (click on "Clinical Guidance" at the top).

**Response:** We have complied with this formatting

9. When you submit your revision, art saved in a digital format should accompany it. If your figure was created in Microsoft Word, Microsoft Excel, or Microsoft PowerPoint formats, please submit your original source file. Image files should not be copied and pasted into Microsoft Word or Microsoft PowerPoint.

Figures 1-2: Please upload as figure files on Editorial Manager.

**Response:** We have uploaded Figure 1 and Figure 2 (revised)

If the figures were created using a statistical program (eg, STATA, SPSS, SAS), please submit PDF or EPS files generated directly from the statistical program.

Figures should be saved as high-resolution TIFF files. The minimum requirements for resolution are 300 dpi for color or black and white photographs, and 600 dpi for images containing a photograph with text labeling or thin lines.

Art that is low resolution, digitized, adapted from slides, or downloaded from the Internet may not reproduce.

10. Each supplemental file in your manuscript should be named an "Appendix," numbered, and ordered in the way they are first cited in the text. Do not order and number supplemental tables, figures, and text separately. References cited in appendixes should be added to a separate References list in the appendixes file.

**Response:** We have complied with this formatting.

11. Authors whose manuscripts have been accepted for publication have the option to pay an article processing charge and publish open access. With this choice, articles are made freely available online immediately upon publication. An information sheet is available at

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